

CLAIMS

1. An artificial tube for nerve having fine fibrous collagen bodies in the lumen of a tube comprised of a biodegradable and absorbable material, the voids inside the fine fibrous collagen bodies being filled with laminin.
2. The artificial tube for nerve according to claim 1, wherein the biodegradable and absorbable material is a mesh material composed of a material selected from the group consisting of polyglycolic acid, polylactic acid, copolymer of glycolic acid and lactic acid, copolymer of lactic acid and ϵ -caprolactone, polydioxanone and copolymer of glycolic acid and trimethylene carbonate, and has a coating layer composed of gelatin or collagen on at least the outside of said tube.
3. The artificial tube for nerve according to claim 2, wherein the mesh material has a mesh pore size of about 5-30 μm .
4. The artificial tube for nerve according to claim 1, wherein the biodegradable and absorbable material is composed of fine fibrous collagen, and has a coating layer composed of collagen at least on the outside of said tube.
5. The artificial tube for nerve according to any of claims 1 to 4, wherein at least one of cell nutrient/growth factors, autologous inflammatory cells or autologous, homologous or heterologous myelin forming cells are additionally introduced into the fine fibrous collagen bodies.
6. A method for producing an artificial tube for nerve comprising steps: preparing a tube comprised of a biodegradable and absorbable material, introducing a

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hydrochloric acid solution of collagen into the lumen of the tube, freezing and then freeze-drying the tube to form fine fibrous collagen bodies, performing thermal crosslinking treatment on the tube having the fine fibrous collagen bodies in its lumen, and introducing laminin into the fine fibrous collagen bodies.

7. The method according to claim 6, wherein the tube comprised of a biodegradable and absorbable material is obtained by coating a gelatin or collagen solution onto at least the outside of a mesh material composed of a material selected from the group consisting of polyglycolic acid, polylactic acid, copolymer of glycolic acid and lactic acid, copolymer of lactic acid and ϵ -caprolactone, polydioxanone and copolymer of glycolic acid and trimethylene carbonate, air-drying and subjecting to thermal crosslinking treatment.

8. The method according to claim 6, wherein the tube comprised of a biodegradable and absorbable material is obtained by coating a hydrochloric acid solution of collagen onto the surface of a core material, freezing and then freeze-drying to obtain a layer composed of fine fibrous collagen, compressing the fine fibrous collagen layer, coating a gelatin or collagen solution onto at least the outside of the compressed fine fibrous collagen layer, air-drying and subjecting to thermal crosslinking treatment.

9. The method according to either of claims 7 or 8, wherein at least one kind of cell nutrient/growth factors, separately cultured autologous inflammatory cells or autologous, homologous or heterologous myelin forming cells loaded onto gelatin or collagen are introduced into the fine fibrous collagen bodies into which laminin has been introduced.

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